CLAIMS

We claim:

1. A golf club head comprising:

a body portion and a crown portion;

the body portion is composed of a first material having a density;

the crown portion is composed of a second material having a density that is less than the density of the first material; and

the crown portion includes an inner surface having a layer of vibration dampening and acoustical attenuating material.

2. The golf club head according to claim 1, wherein the crown portion density is between about 0.1 g/cc to 4.0 g/cc.

3. The golf club head according to claim 1, wherein the first material is a titanium alloy and the second material is a composite or a thermoplastic or a metal.

4. The golf club head according to claim 1, wherein the first material is a stainless steel alloy and the second material is a metal, a composite or a thermoplastic.

5. The golf club head of claim 1, wherein the crown portion is cast, formed, injection molded, machined or pre-preg sheet formed.

6. The golf club head according to claim 1, wherein the second material is a composite.

7. The golf club head of claim 1, wherein the body portion is forged.

8. The golf club head of claim 1, wherein the body portion is sheet metal formed.

9. The golf club head of claim 1, wherein the body portion is cast.

10. The golf club head according to claim 1, wherein the club head has a maximum coefficient of restitution greater than 0.80.

11. The golf club head of claim 1, wherein the layer of vibration dampening and acoustical attenuating material is integral with and covers substantially the entire inside surface of the crown portion.

12. The golf club head of claim 11, wherein the layer of vibration dampening and acoustical attenuating material produces a reduction in noise from about 28% to 50% over a frequency range between about 3800Hz to 10,000 Hz at a swing speed of 90 mph.

13. The golf club head of claim 11, wherein the vibration dampening and acoustical attenuating material is a titanium mesh.

14. The golf club head of claim 1, wherein the layer of vibration dampening and acoustical attenuating material is integral with and in the shape of a ring juxtaposed against an outer ledge section adjoining an outer perimeter of the crown portion.

15. The golf club head of claim 1, wherein the layer of vibration dampening and acoustical attenuating material is a gasket disposed between a ledge section of the crown portion and a lip section of the body portion.

16. The golf club head of claim 15, wherein the gasket is composed of titanium mesh or aluminum foil material or a viscoelastic material.

17. The golf club head of claim 1, wherein a perimeter of the crown portion includes a plurality of Y joints for securing to the body portion.

18. A golf club head comprising:

a body portion and a crown portion;

the body portion is composed of a first material having a density;

the crown portion is composed of a second material having a density that is less than the density of the first material; and

a gap being defined between a transverse surface of the crown portion and a transverse surface of the body portion,

wherein the gap is filled with a shock absorption material.

19. The golf club head of claim 18, wherein the shock absorption material includes putty or a rubber based structural adhesive.

20. The golf club head of claim 18, wherein the gap further includes being of an L-shape and filled with putty or a rubber based structural adhesive.

21. The golf club head according to claim 18, wherein the first material is a titanium alloy and the second material is a composite or a thermoplastic or a metal.

22. The golf club head of claim 18, wherein the crown portion is cast, formed, injection molded, machined or pre-preg sheet formed.

23. The golf club head according to claim 18, wherein the second material is a composite.

24. The golf club head of claim 18, wherein the body portion is forged.

25. The golf club head of claim 18, wherein the body portion is sheet metal formed.

26. A golf club head comprising:

a body portion and a crown portion;

the body portion is composed of a first material having a density;

the crown portion is composed of a second material having a density that is less than the density of the first material;

the body portion having a club face with an effective hitting area greater than 7.25 in^2 and a spin variance of less than 500 rpm when the club is struck at a 11° launch angle and a club head speed of 90 mph.